

REMARKS

Applicant requests favorable reconsideration and allowance of this application in view of the foregoing amendments and the following remarks.

Claims 1-3, 5-14, 17, and 18 are pending in this application, with Claims 1, 5, 9, 11, 13, 17, and 18 being independent. Claims 5-8, 13, 14, and 18 stand withdrawn from consideration, so Claims 1, 9, 11, and 17 are the only independent claims currently being considered.

Claims 1, 9, 11, and 17 have been amended. Applicant submits that support for the amendments can be found in the original disclosure, and therefore no new matter has been added.

Claims 1-3, 9-12, and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,378,070 (Chan) in view of U.S. Patent No. 6,360,320 (Ishiguro) and U.S. Patent Publication No. 2002/0131593 (Parry). Applicant respectfully traverses this rejection for the reasons discussed below.

As recited in independent Claim 1, the present invention is directed to an information processing apparatus having a code reception unit adapted to receive a personal identification code (PIN) input by a user of the information processing apparatus via an operation unit. Claim 1 further recites a random number generator adapted to generate a random number, and a code conversion unit adapted to convert the received PIN using a predetermined function. A random number encryption unit is adapted to encrypt the random number using the PIN for an encryption key, and a print data encryption unit is adapted to encrypt print data using the random number for an encryption key. A transmission unit is adapted to transmit the encrypted random number, the converted PIN, and the encrypted print data to a print control apparatus.

Due to the above features of Claim 1, only a user having the PIN can access the print data at the print control apparatus. That is, the PIN is needed to decrypt the random number, so that the decrypted random number can be used to decrypt the print data.

Applicant submits that, in Claim 1 as previously pending, it was clear that the random number used to encrypt print data and the PIN used to encrypt the random number are not supplied from an apparatus outside the information processing apparatus. In particular, Claim as previously pending recites that the information processing apparatus includes a random number

generation unit adapted to generate a random number and includes a code reception unit adapted to receive a PIN, *the PIN being input by a user of the information processing apparatus via an operation unit*. Nevertheless, in order to expedite prosecution, Applicant has amended Claim 1 to expressly recite that neither the PIN used by the random number encryption unit nor the random number used by the print data encryption unit is supplied from an apparatus outside the information processing apparatus or is generated based on information supplied from an apparatus outside the information processing apparatus.

Applicant submits that the cited art fails to disclose or suggest at least the feature recited in Claim 1 of a random number encryption unit adapted to encrypt a random number (which is used for an encryption key to encrypt print data) using a PIN input to the apparatus by a user for an encryption key.

In Chan a computer 100 encrypts print data (PCL data) by using a session key, obtains a public key from an external directory server, and encrypts the session key by using the obtained public key. Although Chan discloses that the session key may be composed of a random number (column 6, lines 14-28), the session key is encrypted using a public key supplied from a directory server outside the computer 100. That is, the session key in Chan is not encrypted using a PIN input by a user for an encryption key.

Likewise, a DVD player in Ishiguro encrypts a session key by using lk as a key. Here, lk is a hash value of the data obtained by linking an ID and a service_key, where the ID is information supplied from a personal computer that is an apparatus outside the DVD player, and service_key is information given by a copyright holder to a user of the DVD player (this information is also supplied from an apparatus outside the DVD player). Thus, Ishiguro also does not disclose encrypting a random number (which is used to encrypt print data) by using a PIN input to the apparatus by a user for an encryption key, and therefore this document is also different from the present invention recited in Claim 1.

Parry discloses that a user inputs a PIN to a host computer in case of performing secure print (paragraph [0030]), and a print job is encrypted (paragraph [0027]). However, Parry does not disclose that the input PIN (paragraph [0030]) is used as a key for data encryption. Although paragraph [0027] of Parry mentions “encryption”, this merely exemplifies encryption methods

such as public key encryption, symmetrical encryption, PGP (Pretty Good Privacy), and the like. Accordingly, Applicant submits that Parry also does not disclose or suggest encrypting a random number used to encrypt print data by using a PIN input to the apparatus by a user.

For the foregoing reasons, Applicant submits that the present invention recited in independent Claim 1 is patentable over the cited art, even if that art is considered in combination. The other independent claims recite features similar to those of Claim 1 discussed above and are believed to be patentable for reasons similar to Claim 1.

The dependent claims are patentable for at least the same reasons as the independent claims, as well as for the additional features they recite.

In view of the foregoing, Applicant submits that this application is in condition for allowance. Favorable reconsideration and an early Notice of Allowance are requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

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